



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/912,918

07/25/2001

Newton Howard

5219-009-US01

5491

78724

7590

07/07/2010

Hanify & King Professional Corporation  
1055 Thomas Jefferson Street, NW  
Suite 400  
WASHINGTON, DC 20007

EXAMINER

OYEBISI, OJO O

ART UNIT

PAPER NUMBER

3695

MAIL DATE

DELIVERY MODE

07/07/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/912,918	HOWARD, NEWTON	
	<b>Examiner</b>	<b>Art Unit</b>	
	OJO O. OYEBISI	3695	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

***In the amendment filed on 04/09/2010, the following have occurred: claims 1, 9 and 10 have been amended and claims 1-14, 17 and 18 are now pending. By the applicant's amendment, the examiner's has withdrawn the rejection of claims 1-14, 17 and 18 under 35 USC § 112, first paragraph.***

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

### **2. Claims 1-9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

**Varon (US PAT 6,420,993 B1) in view Ladwig (US 6,408,404 B1).**

**Re Claims 1 and 17:** Varon discloses an automated system for notifying a first user

Art Unit: 3695

who issued a first natural message pertaining to a future event of a potential conflict with a second natural language message pertaining to a current event comprising:

- An input device for receiving the first natural message entered by the first user (Column 4, lines 24-26; "flight data plans," flight data processor (24a) receives plans submitted by aircraft personnel to designate routes.")
- A passive (radar, transponders) input device for receiving the second natural language message and operable to receive information for controlling the operation of the passive input device (Column 4, lines 8-21; flight data and plans for second plane)
- An input module for determining that the first natural language message is of a first report type, cycling through the first natural language message to obtain a first plurality of messages from the first natural language message and providing the location of each of the first plurality of messages within the first natural language message and the relationship of each of the first plurality of messages and the first natural language message and determining that the second natural language message is of a second report type, wherein a type for the second report type is determined (Column 4, lines 24-26; Ref 24a); and an intention determination system, determining if execution of the messages complies with the intent of a user issuing the first natural language message prior to the execution of the first natural language message based in part, on a comparison of the content extracted from each of the first natural language message and the second natural language message, and a comparison of the first plurality of messages and reference

Art Unit: 3695

information in a database and issuing a potential conflict alert if the execution of the first natural language message fails to comply with the intent of the user issuing the first natural language message (Column 4 lines 26-38; Column 4 line 66-Column 5 line 18). Varon does not explicitly disclose converting each of the messages in the first plurality of messages and second natural language messages from a natural language format to a spatial temporal format including an event, a type of event, and a time of event, wherein the conversion generates restructured messages that are combined. However, Ladwig discloses converting each of the messages in the first plurality of messages and second natural language messages from a natural language format to a spatial temporal format including an event, a type of event, and a time of event (i.e., Computer system 170 includes an illustrated hunter agent 175 and a message database 180. The hunter agent 175 is sent by the presence 150 to the computer system 170. The message database 180 can receive information from many sources such as a satellite link. Functionally, an agent is computer software, transportable over a computer network from one computer to another, to implement a desired function on the destination computer. An agent can also be defined as a transferable self-contained set of executable code instructions. The hunter agent 175 uses information contained in the message database 180 to create and send an event stream object (ESO) 182 to the presence 150. A relationship 184 exists between the ESO 182 and the message database 180. The hunter agent 175 has to go out and look for information contained in databases throughout the network. The hunter agent can transform the events into a standardized format for use by the

Art Unit: 3695

presence 150 which can include at least some of the following information associated with each event: type, title, datetime, keywords, summary, priority, and duration, see col.5 lines 26-46). Thus it would have been obvious to one of ordinary skill in the art to combine the teachings of Varon and Ladwig since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable. The examiner further contends that using a language converter to convert messages into a positions based format is old and well known in military conflicts, and would have been obvious to anyone of ordinary skill to allow tactical planners to assess the geographical position of the parties involved in order to make a coordinated plan. Utilizing a position-based format allows each party to be marked respective to one another, which allows for more efficient planning.

**Re Claim 2:** Varon discloses the claimed system supra but does not explicitly disclose wherein the messages include text messages. However the submission of text messages is a notoriously old and well-known form of electronic communication and would have been obvious to one of ordinary skill at the time of invention to include to the system of Varon. One would be motivated to do this in order to provide short and succinct messages in a language that is easily viewed and interpreted by an input device.

**Re Claim 3:** Varon discloses the claimed system wherein the messages are converted to executable messages for machine processing (this is an inherent

Art Unit: 3695

feature in that in a digital world messages are usually converted to executable messages for machine processing).

**Re Claim 4:** Varon discloses the claimed system and further discloses wherein the input device includes a device selected from the group consisting of a PDA, cellular phone and a radio transmitter (Column 3, lines 65 - Column.4 line 7).

**Re Claim 5:** Varon discloses the claimed system supra and further discloses wherein the passive input device includes a device selected from the group consisting of a cellular phone and an electronic pad, a sensor ("transponder" Column 4, lines 17- 19; "second portions of the target signal."), and a satellite.

**Re Claim 6:** Varon discloses the claimed system supra but does not explicitly disclose an output device for generating a record of the alert. However it was well known in the art at the time of invention to use a printer for such applications and therefore it would have been obvious to anyone of ordinary skill to include this feature to the system of Varon. One would be motivated to do this in order to have a record of past alerts to review the past conflicts in order to adjust future flight plans and timing patterns to avoid similar problems in the future.

**Re Claim 7:** Varon discloses the claimed system supra but does not explicitly disclose wherein each of the user interfaces includes a node-based navigation system that allows user customization of how the alert is displayed. However it was well known for node-based navigation systems to be used by pilots in order to display an aircrafts position relative to other aircraft. Furthermore it was well known for a user to customize a display interface so that each individual can quickly and

Art Unit: 3695

easily interpret the data on the display in a manner that is most comfortable to them.

Therefore it would have been obvious to include these features to the system of Varon so that each pilot can be notified of a potential conflict and furthermore can view the upcoming hazard so that evasive action can be taken.

**Re Claim 8:** Varon discloses the claimed system supra and discloses wherein at least one of the first users issues at least one of the messages from a remote location (planes are inherently in remote locations).

**Re claim 9.** Varon discloses the claimed method supra and further discloses

- A rule base analyzer for periodically retrieving and processing content extracted from the first natural language message and the second natural language messages and reference information to determine if execution of the messages creates the potential conflict (Column 4, lines 30-37, lines 60-65). Varon does not explicitly disclose:

- A database for storing both the messages, the restructured messages and reference information. Ladwig discloses a database for storing information related to the messages and reference information (Column 5, lines 48-58; Ref 190). It would have been obvious to anyone of ordinary skill at the time of invention to include this feature to the system of Varon so that there is a way to recall the messages in the instance that there is a problem in the language translation. If the language transformation was improper and the original messages were not stored, the original information would be lost and there would not be any means to determine the original intent of the messages. This would be hazardous as potential conflicts with



Art Unit: 3695

aircrafts are very time dependent and any delay in issuing an alert would be dangerous.

**Claims 10-14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ladwig (6,408,404 B1) in view of Varon.**

**Re Claim 10:** Ladwig discloses a system and method for ensuring and managing situation awareness for checking of potentially conflicting natural language message issued by a plurality of users comprising:

- An input module for determining that the first natural language message is of a first report type, cycling through the first natural language message to obtain a first plurality of messages from the first natural language message and providing the location of each of the first plurality of messages within the first natural language message and the relationship of each of the first plurality of messages and the first natural language message and determining that the second natural language message is of a second report type, wherein a type for the second report type is determined (Column 7, lines 51-57)
- A language converter for converting each of the messages in the first plurality of messages and second natural language message from a natural language format to a spatial temporal format including an event, a type of event, and a time of event, wherein the conversion generates restructured messages (i.e., Computer system 170 includes an illustrated hunter agent 175 and a message database 180. The hunter agent 175 is sent by the presence 150 to the computer system 170. The message database 180 can receive information from many sources such as a

Art Unit: 3695

satellite link. Functionally, an agent is computer software, transportable over a computer network from one computer to another, to implement a desired function on the destination computer. An agent can also be defined as a transferable self-contained set of executable code instructions. The hunter agent 175 uses information contained in the message database 180 to create and send an event stream object (ESO) 182 to the presence 150. A relationship 184 exists between the ESO 182 and the message database 180. The hunter agent 175 has to go out and look for information contained in databases throughout the network. The hunter agent can transform the events into a standardized format for use by the presence 150 which can include at least some of the following information associated with each event: type, title, date time, keywords, summary, priority, and duration, see col.5 lines 26-46).

- A database for storing both the first natural language message and the second language message, the restructured messages and reference information (Ref 195; Column 5, lines 48-58)
- A rule-based analyzer for periodically retrieving and processing content extracted from the first natural language message and second natural language message, restructured messages, and reference information wherein, processing includes determining if execution of the messages complies with the intent of a user issuing the messages based, in part, on a comparison of the restructured messages with stored reference information and the restructured messages with the second natural language message (Column 4, lines 25-38) and wherein the analyzer generates an alert if execution of

Art Unit: 3695

plurality of messages obtained from the first natural language and second natural language message fails to comply with the intent of the user (Column 7, line 65- Column 8 line 14).

Ladwig does not disclose wherein the system is an intention determination system for predictive checking of potentially conflicting messages. Varon discloses an air traffic control system that periodically monitors air traffic based on current situational awareness as well as intention-based information (i.e. flight path; Column 4, lines 24-26) and issues alerts about potential conflicts. It would have been obvious to anyone of ordinary skill in the ordinary art at the time of invention to include the intention determination aspect of Varon to the disclosure of Ladwig in order to provide the system with a more forward looking timeline of potential events and military conflicts. Ladwig discloses that his invention is intended to have a dynamic temporal flow and present information is events spread over a timeline with a past present and a future (Column 6, lines 48-54). By providing high probability future events (such as flight plans for military operations), the system can extend even further and provide the user with even more information from which to make decisions. This would further assist in assessing events and issuing rule-based actions. The references also do not disclose wherein the language converter converts the messages into a positions based format. However this step is old and well known in military conflicts, and would have been obvious to anyone of ordinary skill to allow tactical planners to assess the geographical position of the parties involved in order to make a coordinated plan. Utilizing a position-based format

Art Unit: 3695

allows each party to be marked respective to one another, which allows for more efficient planning.

**Re Claim 11:** Ladwig in view of Varon discloses the claimed system supra and while not explicitly disclosing wherein the messages include orders issued by military personnel, Ladwig discloses the advantages of his system for low intensity conflict monitoring, military intelligence and strategic threat assessment (Column 1, lines 44-48). It was old and well known in the art for military personnel to handle issues of military intelligence and strategic threat assessment and therefore would have been obvious to anyone of ordinary skill at the time of invention that messages relating to such matter are issued by military personnel.

**Re Claim 12:** Ladwig in view of Varon discloses the claimed system supra and Ladwig further discloses wherein the input device includes a device selected from the group consisting of a cellular phone, a radio transmitter, an electronic pad, a sensor and a satellite (Column 5, lines 29-31).

**Re Claim 13:** Ladwig in view of Varon discloses the claimed system supra and Ladwig further discloses wherein the user allows user customization of how the alert is displayed (Column 8, line 14-17 and 29-31). While not explicitly disclosing a node based navigation system, these types of systems are old and well known in the art (such as a grid based satellite tracking system) and would have been obvious to anyone of ordinary skill at the time of invention. One would be motivated to include this feature in order to coordinate disjointed parties and locate their positions relative to one another.

Art Unit: 3695

**Re Claim 14:** Ladwig in view of Varon discloses the claimed method supra wherein at least one of the messages is issued from a remote location (Column 2, lines 10-14 "disjointed sources").

**Re claim 18.** Ladwig discloses the system according to claim 1, further comprising at least one user interface for respectively notifying the first user by displaying the alert (Column 8, lines 15- 18).

### **Response to Arguments**

Applicant's arguments filed 04/09/2010 have been fully considered but they are not persuasive. The applicant argues in substance that the prior arts of record fail to disclose that messages are obtained from a flight plan or that there are different kinds of target data signals. Contrary to the applicant's assertion, Varon discloses a plurality of targets (see col.5 lines 9-18). The applicant further argues that there is also no disclosure in Varon of comparing any portion of the data flight plans for the respective aircrafts and reference data in a database. Contrary to the applicant's assertion, Varon discloses that a composite flight plan is computed and that violations of separation standards are predicted (See Varon col. 5, lines 19-40). The examiner contends the computation of composite flight plan and the predicted violations of separation standards, as taught by Varon, encompass applicant's claimed comparison of data flight plans and reference data.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OJO O. OYEBISI whose telephone number is (571)272-8298. The examiner can normally be reached on 8:30A.M-5:30P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Kyle can be reached on (571)272-8594. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3695

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/OJO O OYEBISI/

Primary Examiner, Art Unit 3695